REMARKS/ARGUMENTS:

Claims 4-6 are pending in the application. Reexamination and reconsideration of the application, in view of the following remarks, are respectfully requested.

The present invention relates to a method for manufacturing a core mold for foam molding to be used for foaming by steam heating a multitude of pre-expanded beads filled in a mold unit to produce a foam-molded article, provided with a concavo-convex pattern on its mold surface for forming a design pattern on the surface of the foam-molded article, and to the core mold manufactured by such a method. (Applicant's specification, at p. 1, lines 6-12).

CLAIM REJECTIONS UNDER 35 U.S.C. § 103:

Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Publication No. 2000-108134 (hereinafter "JP '134") in view of Chun et al. (U.S. Patent No. 6,423,252). The Applicant respectfully traverses this rejection. Claim 4 is as follows:

> A core mold for foam-molding manufactured by a method for manufacturing a core mold for foam-molding provided with a concavo-convex pattern on its mold surface for forming a design pattern on the surface of a foam-molded article, comprising the steps of:
>
> forming a reverse concavo-convex pattern that is reverse of said concavo-convex pattern, on the surface of a core mold making model made of a conductive material having the same shape as said mold surface; and
>
> transferring said reverse concavo-convex pattern by electric discharge machining to said mold surface, so as to form said concavo-

convex pattern, wherein said core mold comprising a steam path disposed through a convex portion of said concavo-convex pattern, wherein said concavo-convex pattern forms a multitude of protrusions on the surface of said foam-molded article, wherein no dimpled portions are visually recognized to have been formed where the protrusions are not visually recognized to have been formed.

Applicant respectfully submits that the cited references cannot render claim 4 obvious, because the cited references fail to teach or suggest a core mold for foam-molding manufactured by a method that comprises the steps of "forming a reverse concavo-convex pattern that is the reverse of said concavo-convex pattern," and "transferring said reverse concavo-convex pattern by electric discharge machining to the mold surface, so as to form the concavo-convex pattern, wherein said core mold comprising a steam path disposed through a convex portion of the concavo-convex pattern, wherein the concavo-convex pattern forms a multitude of protrusions on the surface of said foam-molded article, wherein no dimpled portions are visually recognized to have been formed where the protrusions are not visually recognized to have been formed."

In JP '134, the size and configuration of a steam path disposed on a core mold are arbitrary within the range that beads will not get through the steam path, and in the working example, a width of a steam path and a pitch are described, and a steam path is disposed also on a concave portion of the concavo-convex pattern which was formed on the surface of a core mold. Thus, a steam path mark protruding into the steam path due to expansion during the foaming process will not be uniform. Consequently, the quality of the design pattern is not retained.

In the present invention, by restricting disposition of the steam path onto convex portion of the concavo-convex pattern that is formed on the surface of a core mold, a steam path mark on the surface of concave portion of said concavo-convex

pattern formed on the surface of a foam-molding article would be uniform, retaining the high quality of the design pattern.

In addition, JP '134 discloses a method for manufacturing a core mold for foam-molding, in which a process for forming a concavo-convex pattern is described, which differs from the process for forming a concavo-convex pattern by an electric discharge machining as taught by the present invention.

Chun describes forming a concavo-convex pattern by using a process of electric discharge machining, which is merely a technology for forming a concavo-convex pattern. Therefore, the concavo-convex pattern formed in Chun and the pattern in the present invention are different in a form as well as in a steam path mark

Furthermore, the Office relies on JP '134 for teaching a foam molding apparatus comprising a concavo-convex pattern on its mold surface for forming the desired pattern on the surface of the mold article and a steam path through a convex portion of the concavo-convex pattern. And the Office acknowledges JP '134 does not disclose the concavo-convex pattern to be formed by an EDM process, and correspondingly, does not mention the formation of dimpled products in the product. Instead, the Office relies on Chun for teaching the use of an electric discharge machining process and states that it would have been obvious to one of ordinary skill in the art to have modified the mold disclosed by JP '134 as such to have used an electric discharge machine process to form the concavo-convex pattern because EDM is cost effective, accurate, and reproducible.

However, as discussed above, JP '134 already has a process to form the concavo-convex pattern. And also as discussed above, Chun uses a process of electric discharge machining. Therefore, combining JP '134 with Chun would change the principle of operation of JP '134. So, based on MPEP 2143.01, the

teachings of JP '134 and Chun are not sufficient to render the invention *prima-facie* obvious.

> "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." MPEP 2143.01

Since Chun uses a method different than the one taught in JP '134, the principle of operation in JP '134 would have to be changed and consequently, the claim cannot be rendered obvious. In light of the foregoing, Applicant respectfully submits that JP '134 and Chun could not have rendered claim 4 obvious, because the combination of references fails to teach or suggest each and every claim limitation. Withdrawal of this rejection is thus respectfully requested.

Claims 4-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Publication No. 08-142061 (hereinafter "JP '061") in view of JP '134 and Chun. The Applicant respectfully traverses this rejection.

Claim 4 and its dependent claims 5 and 6 are patentable over JP '134 and Chun for the reasons discussed above. JP '061 cannot remedy the defect of JP '134 and Chun and is not relied upon by the Office for such. Instead, the Office cites JP '061 for teaching a foam molding apparatus comprising a plurality of adjoining components to make a molding surface, and the components are further provided with steam paths. JP '134 discloses an article provided with a board having a small path into the surface of a core mold on which a steam path is disposed, wherein the small path of said board will work as steam path, and all of such small paths will become raised steam path marks on a foam-molding article. In the present invention, steam path marks are formed on the concave portion on a surface of a foam molding article, which differs in a manner of forming steam path marks from that of JP '061.

Accordingly, there exist the above discussed differences between the present invention and each of the cited references. Because of these differences, a person of ordinary skill in the art, would not arrive at the present invention by combining the cited references.

In light of the foregoing, Applicant respectfully submits that the cited references could not have rendered claims 4-6 obvious. Withdrawal of this rejection is thus respectfully requested.

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, in view of the foregoing remarks, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6809 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
HOGAN & HARTSON L.L.P.

Date: May 12, 2006

By: Lawrence J. McClure
Lawrence J. McClure
Registration No. 44,228
Attorneys for Applicants

500 South Grand Avenue, Suite 1900
Los Angeles, California 90071
Phone: 213-337-6700
Fax: 213-337-6701